

San Joaquin River Group Authority and the
State and Federal Contractors Water Agency
Joint Comments on the 2-14-11 First Draft of the Delta Stewardship Council's Delta Plan

GENERAL COMMENTS:

The DP must improve in clearly articulating, along with the legislative citation, which activities the Council considers within its regulatory purview, those that it will be "promoting", and those about which it will be making recommendations to other jurisdictional entities with pertinent authorities.

As stated at one point in the draft [page 1-1, line 27], no single effort or plan will achieve or "implement" the coequal goals. Consequently, the document should refrain from making and repeating the statement that the purpose of the Delta Plan (DP) is to "implement" or "achieve" the coequal goals. It is more accurate to say, as the draft does on page 2-1 at line 4, that the DP will "further the coequal goals", which is also how the Delta Reform Act (Act) puts it in section 85300(a): "the council shall develop...[a] Delta Plan...that furthers the coequal goals".

Throughout the DP there are references to the goal for water supply as "manage water resources," rather than using the statutory description of "providing a more reliable water supply." This is inappropriate and the language of the statute should be used rather than the phrase "manage water resources." The use of that term to describe a subset of water management actions contributing to greater reliability would be appropriate, but not as an overarching approach to fostering achievement of the coequal goals.

Further, with regard to water supply/management components of the DP, we remind the Council that the Act includes specific identified outcomes that must be used to determine the DP's ultimate success in satisfying the "providing a more reliable water supply for California" prong of the coequal goals:

Section 85302(d) The Delta Plan shall include measures to promote a more reliable water supply that address all of the following:

- (1) Meeting the needs for reasonable and beneficial uses of water.
 - (2) Sustaining the economic vitality of the state.
 - (3) Improving water quality to protect human health and the environment.
- [Emphasis added.]

The current draft of the DP does not adequately reflect the Legislature's clear direction in section 85302(d). The DP should include discrete references to the outcomes set forth in section 85302(d)(1)-(3), and use them as organizing principles for the actions, policies, strategies and recommendations proposed within the DP that are intended to further their achievement.

We also point out that the draft does not discuss the reasonable use doctrine in a balanced manner. All beneficial uses of water within California are subject to the doctrine and the dictates of the Constitution's Article X, Section 2. The DP must incorporate that principle not only in its recommendations regarding "water management actions", but also to potential measures intended to benefit fish and wildlife.

In addition, although the draft defines "best available science", it cites documents to support some of its findings, conclusions and recommendations that do not meet that definition. For example, the draft relies upon the State Water Resources Control Board flow criteria report which by its own terms does not meet the "best available science" standard and which the Board itself acknowledged was rife with questions and uncertainties, as well as fundamentally not representing a valid approach to the setting of actual flow standards consistent with the Board's authorities and responsibilities pursuant to the balancing of beneficial uses. Moreover, the DP's similar reliance on the OCAP biological opinions, one of which was invalidated in many technical and scientific respects by the District Court, and the validity of the other is currently being challenged in that same court, is not consistent with the requirement in section 85302(g).

It is important that the DP describe "covered actions" consistently throughout and with a level of detail reflective of the definition in the Act, rather than only stating that covered actions are those that occur in whole or in part in the Delta or Suisun Marsh. Per section 85057.5 of the Act, there are additional criteria that must all be satisfied before an activity qualifies as a "covered action" and is subject the Council's consistency review authority: it must also be carried out, approved or funded by a state or local public agency; be covered by the Delta Plan; and, impact the co-equal goals or flood control capability in the Delta. Hence, not all projects in the Delta are necessarily "covered actions".

We urge the Council to focus, as well, on the particularly important need for the overall clarity of the DP given that state and local public agencies proposing to undertake "covered actions" must prepare a written certification that includes detailed findings that the proposed action is consistent with the DP. Without such clarity, certifications will be more difficult to prepare and unnecessary appeals to the Council could result.

With respect to the "working categories of potential policies and recommendations" found at the end of each chapter, the Council and the DP must take into account and not seek to reinvent the wheel where the state, with stakeholder input, has already developed policies and recommendations, and sometimes performance measures, for many of these same categories in the last few years. The Council and the DP should identify those efforts and allow sufficient time for agencies to implement such existing recommendations before rushing to develop redundant policies and regulations.

As one example, with regard to improving the management of water resources, the State has already developed the following policies and recommendations:

- Recycled Water - the SWRCB has adopted a Recycled Water Policy after input from a task force.
- Groundwater Management - The recycled water policy affects groundwater recharge and salt and nutrient plans are being developed for groundwater basins throughout the state. AB 2222, passed in 2008, established a task force through the SWRCB to extend the USGS GAMA (Ground-Water Ambient Monitoring and Assessment) Program. The SWRCB has received a "constituents of emerging concern" blue ribbon panel report. As part of the Act, SBX7-6 provided for DWR to start the CASGEM (California Statewide Groundwater Elevation Monitoring) Program.
- With regard to water use efficiency and 20x2020 criteria, methodologies and criteria are being established.
- Stormwater and new development standards: the Regional Boards have new requirements for MS4 Permits. MS4 applies to any storm drain or water body modified for flood control. Also

there are already many discussions of Low-Impact Development criteria going on at state, county and local government levels.

The Council and the DP should inventory all that has already been developed, is in the process of being developed, and has already been directed to be developed in the areas pertinent to all of the lists of “working categories of potential policies and recommendations”.

TABLE OF CONTENTS:

Chapter 1 – should identify the Delta as critical not only to California, but also to the Nation.

Chapter 2 – “Implementation” of the coequal goals is not a “purpose”. “Contributing to the achievement of the coequal goals” is a “purpose” and such language should replace “implementation”.

Chapter 5 – “reliability imported from the Delta” doesn’t make sense. Instead of “Measurable Assessment of Water Supply Reliability Imported from the Delta Watershed”, we suggest “Measurable Assessment of Long-Term Reliability of Water Supplies Imported from the Delta Watershed.”

Chapter 5 headings list a finding to “Promote” a more reliable water supply but then Chapter 6 is entitled “Restore Delta Ecosystem”. These are not “equal” objectives consistent with “the coequal goals.” To be consistent with the definition of the coequal goals in the Delta Reform Act, “Promote” in the Chapter 5 heading should be replaced with “Provide”.

CHAPTER 1:

1-1, L 3: “ensure” is not the right word, as the legislation itself will do no such thing. We suggest “establish improved” as a substitute for “ensure”, along with adding “as the coequal focal points of water management in the state.” at the end of the sentence after “Marsh”.

1-1, L 11: the “fundamental purpose” cannot be to “achieve” the coequal goals, as no single action or plan will *achieve* them. There will be multitudes of actions all over the state, as well as in the Delta, necessary to actually “achieve” the coequal goals over the course of decades. The purpose is to develop a DP that will contribute to the achievement of and “further” the coequal goals as part of a broader approach that will ultimately include actions beyond the scope of the DP and the jurisdiction and authorities of the Council.

1-1, L 22: “reduce future risks” to “most” of California. The risks to the Delta, Suisun Marsh and “most of California” are distinct and should be more specifically identified to better understand what the DP is being designed to address.

1-1, L 24: substitute “help California attain” for “attain” the coequal goals.

1-1, L 28: insert “all of the related” prior to “the water and ecosystem”.

1-2, L 3-4: Heading (and following discussion) should also identify the Delta's role as the hub of the state's major water projects and as being critical to California and the nation, considering the economic activity and agricultural production dependent on State Water Project (SWP) and federal Central Valley Project (CVP) deliveries.

1-2, L 6-7: Water doesn't "flow" through the Delta to "more than two-thirds of all Californians." Water diverted to storage upstream and released there from eventually flows to and through the Delta to the SWP/CVP pumping and conveyance facilities, which then deliver it to agencies serving 25 million Californians, and 4 million acres of highly productive agricultural lands.

1-2, L 7-9: The 600,000 residents number should be replaced with or supplemented by the split of residents between the secondary and primary zones, or at the very least, the sentence should end by acknowledging that most live on the edges of the Delta in the "Secondary Zone."

1-2, L 11: Use of the term "islands" is misleading. The document should either include or footnote a description about subsided lands and the resulting "subsided depressions surrounded by channels" where levees are actually dams holding back water and protecting people and property behind them, 24/7/365.

1-2, L 33-35: This section inappropriately omits the impact of other stressors (invasive species, pollution, predation, etc.), which have increasingly come into focus as primary drivers negatively impacting species of concern in the Delta, and which have had the greatest impact on the "Delta and its sustainability." In addition, there is no mention of the dramatic alteration of the Delta's geometry over the last 150 years. The Delta has been all but completely channelized and most every natural watercourse has been modified, resulting in a loss of 95% of all wetland habitat, which certainly has had and continues to have a major impact on the Delta's sustainability. Moreover, the impact of past and current actions in the Delta on its sustainability must be acknowledged too, including land conversion, agricultural water use and runoff, unscreened diversions, etc. While the DP's statement about agricultural and urban "use patterns" (a term which is undefined, but needs to be) and actions "outside the Delta" being a significant factor impacting "the Delta and its sustainability" is valid, it is too simplistic to assert they "have perhaps the greatest impact". The current language perpetuates a mythology that diverts attention from and is not reflective of a more comprehensive approach that should be at the core of the DP.

1-2, L 36-37: The statement that "Water management practices across the state affect demand on water supplies conveyed through the Delta" is overly broad as a stand-alone assertion. Substitute "within the Delta watershed and in the export service areas" for "across the state".

1-3, 1-4: This bullet should also note that 95-98% of the biomass in the Delta is non-native.

1-3, 11-12: Again, it is important to segregate the numbers to reflect the dramatic difference between the primary and secondary zones. The former supports something like 6,000-8,000 jobs and much less acreage that is utilized for non-pasture agriculture. Not including these specifics gives a false impression to the reader of the potential impacts of various actions within "the Delta" since most impacts will occur in the primary zone where there are many fewer people, jobs, acres of non-pasture agricultural lands, etc. This is not to say that such impacts in the primary zone should be discounted, but rather that the

DP should present a more precise rendering so they can be better acknowledged, understood and addressed.

1-4, L 3: "failure" of what? This is too opaque.

1-4, L 7-11: This sentence needs to be reworked as it is awkward and suffers from an apples and oranges problem. "Water supplies and ecosystem health" are not of the same category as levee investment and the capacity of the Delta economy in their ability to "counter" various risks in the Delta.

1-4, L 14: Because the seismic risk also imperils water conveyance in the Delta, "water supplies" should be added to the list of what is threatened (i.e. "residents, visitors, agriculture, water supplies and the ecosystem"). Although this is called out in the bullets subsequent to this sentence, it is important to include it in both places as are the other interests.

1-6, L 3-5: No government can make it rain or snow and including this statement implies there is an unmet expectation of that by some. The statement should either be deleted or revised along the lines of the following: "The limitations of current infrastructure capabilities, in combination with the nature and timing of water demands, both current and future, make it all but impossible to reliably and affordably meet all demands at all times." And while not necessary to address in this particular section, the DP needs to emphasize, as it notes in some instances already, that investment in infrastructure can improve water supply reliability and long term sustainability of water supplies, while enhancing operational flexibility that will also contribute to ecosystem recovery and restoration.

1-6, L 11-17: Because the first part of this sentence, "to plan for regionally sustainable water supplies to meet reasonable water demands for all beneficial uses", is not within the purview of the DP, we suggest putting a period (".") after "beneficial uses". Begin the next sentence with, "The Delta Plan is intended to help implement...", and delete the last sentence since the point is made by having moved the phrase to the beginning of the second sentence. It would also better reflect the breadth of the Act's charge to the Council and its direction regarding the content of the DP in section 85020 to include a reference to improvements to "the water conveyance system and expand statewide water storage" in the second sentence.

1-6, L 15-16: substitute "for" for "an" and add "consistent with the coequal goals" at the end of the sentence.

CHAPTER 2:

2-1, L 4-5: The DP should only be addressing policies "inherent" to management of the Delta (i.e. those identified in section 85020 of the Act) and those defined by the Act's specific direction regarding DP content (section 85300 et. seq.), not "all" policies or "objectives" identified in the Act, which this sentence implies is the intent. The DP must stay within the limits the Legislature defined in the Act.

2-1, L 7: Substitute "covered actions" for "projects".

2-1, L 9-11: Substitute "Contributing to" or "Furthering" for "Meeting" at the beginning of the sentence. Also, insert "(("covered actions"))" between "projects" and "that" to clearly reflect the fact that it is only "covered actions" that are subject to ultimate consistency determinations by the Council. In addition, it may be useful to also refer to the statutory definition of "covered actions" per section 85057.5: (1) occurs in whole or part in the Delta or Suisun Marsh, (2) will be carried out, approved, or funded by the state or a local public agency; (3) is covered by one or more provisions of the Delta Plan and (4) will have a significant impact on the achievement of one or both of the coequal goals or the implementation of a government-sponsored flood control programs to reduce risks to people, property, and state interests in the Delta.

2-1, L 17: The reference to section 85021 as partly defining objectives of DP is inappropriate and it should be deleted. Section 85021 is a discrete and separate policy statement by the Legislature that is not "inherent" to, or directed to be included in, the DP; nor does it confer any authority upon the Council. [It is telling that at page 3-1, L 17 the "inherent objectives" listed are only those appropriately gleaned from section 85020, without any mention of section 85021.]

2-2, L 11-16: Delete the quotation of section 85021.

2-2, L 35: The Council will not be "implementing" all of the DP, various other entities, including local governments proposing "covered actions" will be "implementing" the DP. The Council is to develop the DP and "implement" only those components within its purview and which are not within the purview of other existing agencies or processes. As noted in the subsequent sentence, the DP will provide "guidance" and it is more appropriate to state that the Council will implement portions of the DP and "will assist in guiding state and local agency actions related to the Delta" (section 85300(a)) consistent with the DP. While the DP will provide recommended guidance with regard to enforcement efforts across state agencies, actual enforcement is left to existing agencies under their existing authorities and discretion.

2-2, L 35-37: This discussion of the Council's authority regarding "covered actions" is pertinent to the "use" of the DP, but it isn't really relevant to a discussion of the "geographic scope" of the DP. While "covered actions" essentially delineate the limits of the Council's authority with regard to "legally enforcing" consistency with the DP, the discussion of the primary and secondary planning areas is relevant to the actual geographic scope of the DP itself. These are distinct issues that should be more clearly differentiated.

2-4, L 10-13: The DP includes the SWRCB's Delta flow criteria report and DFG's flow criteria and biological objective report as "other plans" the Council will consider during preparation of the DP. This, of course, was the intent of the legislation, although we again request a clear statement from the Council, in the next iteration of the DP perhaps, as to how it expects to "use" these reports and its perspective on issues related to river flows in the DP. We also feel compelled to remind the Council of the limited utility of these reports in that, as particularly caveated in the SWRCB report, both were prepared with a very narrow focus; namely, (1) looking at flow only, (2) ignoring the impact of other stressors, (3) assuming current conditions in the Delta and ignoring planned infrastructure and habitat improvements in the BDCP and other plans and, (4) there was no regard given to impacts on other beneficial uses. Consequently, it is clearly evident that the flow criteria developed in these reports ignore one of the two coequal goals, i.e. "a more reliable water supply for California." Moreover, these

reports were developed in truncated processes that did not allow for rigorous debate over the merits of the criteria or the science underlying them. While at least the SWRCB held three days of "hearings", DFG developed its report behind closed doors with little public input whatsoever. Finally, in any proceedings considering the use of such flow criteria, a much broader array of interests must be considered before any determination of the appropriate criteria can be finalized.

2-4, L 24: Unlike the requirements set forth in section 85320, section 85321 represents a separate and distinct requirement the Legislature established for the BDCP but it is not an express requirement for consideration or incorporation of the BDCP into the DP and reference to it in this sentence should be deleted.

2-4, L 26-27: Contrary to how this sentence is written, it is not for the Council to determine whether the BDCP has satisfied the requirements set forth in section 85320. That job was expressly delegated to the DFG by the Legislature. The Council is only to determine if DFG's certification of BDCP's satisfaction of the statutory requirements was reasonable, if, and only if, that certification is appealed to the Council.

CHAPTER 3:

3-1, L 3: Add "and recommend" after "provide" as many of the components of the DP will involve choices by other entities. Only with respect to "covered actions" will discretion be limited.

3-3, L 10: The notion of using "anecdotal evidence" as potentially determinative of or contributing to the "best available science" is unacceptable and the term should be deleted. While anecdotal "evidence" may be relevant to an investigation and reflect the "best available information", it should in no way be equated with "science".

3-3, L 17: By the express language of the Act, section 85021 does not help "define" the coequal goals, and the citation to it should be deleted.

CHAPTER 5:

5-1, L 3: It's the "Bay Delta Conservation Plan" not "Program".

5-1, L 8: While it is true the water supply is "finite" (a statement that applies to water globally), the amount available to California can vary greatly from year-to-year -- from flood to drought and everything in between. This statement is essentially meaningless in the context of modern water management and should be deleted.

5-1, L 8-9: It is not the water right system that has led to unsustainability; it is competition for water supplies that now includes an overlay of environmental demands that weren't contemplated when the state's backbone water system was developed. California confronts primarily a management problem, combined with an infrastructure deficit, rather than a lack of water.

5-1, L 10: The notion that there is a “growing need to restore adequate water supplies to protect the state’s environmental resources” neglects the incredible redistribution of water that has already occurred to meet environmental regulatory demands. The need is far from simply throwing more water at the problem, as this statement implies, but rather to reassess the efficacy of that long applied strategy in the context of increasingly competing demands to serve all beneficial uses and improved ecological understanding of other stressors on the system. Consequently, we suggest deleting “growing” and substituting “provide” for “restore”.

5-1, L 11: the “trajectory of water conflicts” is actually more than sustainable, were trying to get out of them, so this should be rewritten. Perhaps replace the last clause with “we find ourselves in a circumstance of unsustainable gridlock.”

5-1, L 21-22: Improving the Delta ecosystem is not a “necessary condition” for improving the water supply system for California, which is not limited to Delta related infrastructure. It would be more accurate to say that, pursuant to environmental laws, Delta ecosystem improvements are a requisite component of moving ahead with restoring the reliability and volume of export and other water supplies dependent on the Delta watershed.

5-1, L 27-30: Businesses have and do make decisions every day based upon data of dubious quality from many sources, or even based upon no data. The sentence should be revised simply to make the point that water information quality can be improved.

5-1, L 34: Is water supply “resiliency” the same as “reliability”? Why introduce this term and what does it mean, especially in the context of the DP?

5-2, under “Other objectives”: Why are the reasonable use and public trust doctrines “particularly applicable” to the Delta watershed and areas that use “Delta” water? These doctrines are equally applicable to all water use in the state. We suggest substituting “, as they are to all waters of the state,” for “are particularly”. In addition, here and elsewhere in the document, the notion that “Delta water” is used outside of the Delta proper is incorrect. Water that is exported by the SWP/CVP is diverted in the Sierra and conveyed to and through the Delta.

5-3, L 13-17: The statement “California regularly uses more water annually than is provided by nature” should be revised to read “The natural availability of water does not provide sufficient quantities in all places at all times that allow for all consumptive or environmental needs to be met. Deterioration in the ability to transfer water in times and places of surplus to other places and at other times of deficit, have contributed to unsustainable groundwater use in some areas of the state.” As a reminder, this is a problem of infrastructure and management, not of water supply per se as nature provides California with more than adequate precipitation: Total supply (precipitation + imports); wet year = 335.8 MAF, average year = 194.2 MAF, dry year = 145.5 MAF; while dedicated supplies in a wet year = 97.5 MAF, average year = 82.5 MAF, dry year = 65.1 MAF.

5-3, L 21: typo, delete “to the”

5-3, L 24: typo, “assumptions” not “assumption” and “demand” not “demands”.

5-3, L 25: The word “wrong” should be replaced with “have become outdated”.

5-3, L 26: insert “current” or “existing” before “water supply and storage system”. It would be beneficial to also add the fact that our management capacity (including particularly the lack of flexibility in the applicable regulatory regime today and which will grow in the future since it is unable to adapt to reflect the reality of climate change) isn’t currently adequate either.

5-3, L 35: As stated in the Constitution, insert “to the fullest extent of which they are capable” after “purposes”.

5-3, L 37: The Public Trust Doctrine is not based in the Constitution and it is incorrect to describe it as such. It is a common law doctrine adopted through the courts, with lineage back to the canals of England which were all owned by the realm but which the people were allowed to use as they were held in “trust” for them by the King/Queen. The word “constitutional” should be deleted.

5-3, L 36-39: There is no absolute connection between preventing waste and allowing “the natural environment to be protected.” This sentence should be rewritten. Perhaps, instead of “will increase water reliability and allow the natural environment to be protected”, we suggest “may increase water supply reliability in some areas and could provide additional flexibility to better protect the natural environment.”

5-3, L 40: typo, delete “the use”

5-4, L 3-12: While we do not disagree with the finding/discussion of investments in regional self-reliance included here, we do not understand why it is included and suggest it should be deleted as this subject matter is beyond the scope of the DP. In addition, linking the benefits of any such investments back to furthering the achievement of the coequal goals in the Delta is dubious.

5-4, L 13-14: Delete “SURFACE AND” and insert “UNMANAGED” between “IF” and “GROUNDWATER”. Not all surface supplies are connected to groundwater and as written this finding is much too broad.

5-4, L 20: insert “unmanaged” before “overdraft”.

5-4, L 21.5: We suggest the “Promote a More Reliable Water Supply” section is deficient because it does not include a finding that the identification and elimination of illegal Delta diversions is necessary to further achievement of the coequal goals. This omission is glaring for several reasons. First, The DP asserts California suffers from groundwater overdraft and the Council Chairman and Executive Officer have repeatedly stated that the water system generally is “oversubscribed”. Illegal diversions should not be tolerated considering this overburdened state of affairs. Second, the DP identifies the need for more information regarding the supply and demand of water. Eliminating illegal diversions would help resolve uncertainty regarding water use in the Delta. Third, the State Water Resources Control Board has concluded the “number and magnitude of illegal diversions” in the Delta “could be quite significant.” Fourth, eliminating illegal use must be prioritized over regulation and curtailment of legal water uses.

5-4, L 29: Ag water “use” is incorrect in that what’s being described is probably “applied water”. This needs to be checked, and if it is “applied water” that should noted and defined.

5-4, L 37-38: The assertion that "The per capita use of water in urban areas of California has remained essentially the same for the past 40 years" does not appear to be accurate. The reference cited Bulletin 166-94, which contains data up to 1990, does show per capita relatively unchanged in the 1970's and 1980's. However, none of the cited references have data from 1990 to 2010. The cited reference to the 20x2020 Water Conservation Plan makes no such assertion and the data in the report for 1995-2005 does not seem to support the stated assertion. More recent versions of Bulletin 166 do not support this statement either. Indeed, there is no question that some areas of the state have achieved significant urban residential conservation on a per capita basis and this should be acknowledged.

5-5, L 5-6: The statement that "DWR has identified the potential need to develop over 3.8 to 9.6 million acre-feet of new water supplies over the next twenty years..." "(based upon information included in the DWR Water Plan, 2005)" seems inconsistent with the citations and we suggest the statement be double-checked. Our read of the range in Water Plan 2005 is 0 to 4 MAF from the least to the highest demand scenario. Even if one adds 2 MAF for groundwater overdraft, the range would be 2 to 6 MAF. DWR has subsequently refined its analysis and taken climate change into account for its Water Plan 2009. We urge the use of the data from the 2009 Water Plan rather than that from the 2005 version.

5-5, L 28: typo, "has" for "have".

5-5, L 26-37: This "finding" needs to better reflect that most of this reduction in reliability has been a consequence of Endangered Species Act (ESA) regulation, as well as contracting and O & M problems within the State Water Project. Moreover, it is expected that implementation of the BDCP will increase these reliability figures significantly and that should be acknowledged as well. Climate change will still be a problem, but investment in new facilities and improved conjunctive use programs would help ameliorate the impacts.

5-5, L 41-44: This sentence is garbled and confusing and needs to be rewritten.

5-5, L 44-45: This statement is unfortunately largely incorrect since it fails to recognize the impact of the imposition of restrictions under the ESA. Prior to recent regulatory constraints there was an ability to move water to available storage south of the Delta – e.g. Diamond Valley Reservoir and the Kern Water Bank. Today, these storage investments have been largely stranded by the inability to move large volumes of water in wet years and during wet periods of normal years. Conveyance limitations are now more critical to address in order of priority than storage to re-establish the benefits of these stranded assets. Long term, if conveyance is addressed, additional storage will be necessary to meet co-equal goals.

5-6, L 7: Substitute "environments" for "ecology".

5-6, L 28: The findings under this section identify an apparent inability to sum up local water use data to give an accurate picture of statewide water use and trends. However, the findings should be revised to better address the assessment required by section 85211(b) which is to assess the reliability of supply imported from the Delta, which would consist of a subset of statewide water supplies and use trends.

5-6, L 42: typo, "available" not "avaible".

5-7, L 12: Substitute “protocols” for “requirements”.

5-7, L 21: Including “Future Water Supply Contracts” on this list of categories subject to the development of policies and recommendations should be deleted as the Council has no authority to reach into that arena.

CHAPTER 6:

6-1, L 4: BDCP is a “Plan” not a “Program”.

6-1, L 10-11: The Delta ecosystem is not “in peril”. In many ways it is a vibrant ecosystem with many species expanding and it now supports a multi-million tournament bass industry which did not exist twenty years ago. It’s just not supporting the species we want it to support, particularly native species and those of concern because of environmental regulations such as the ESA. This vibrant ecosystem is still evolving and unless action is taken, it will evolve further away from that favored by law.

6-1, L 14: should add “for native species” after “healthy ecosystem”.

6-1, L 17: states that “the Delta ecosystem is now on a trajectory of change that cannot be completely reversed...” This is not a recent phenomena, the irreversible trajectory began with the “reclamation of swampland” over 150 years ago, and mining, etc. We suggest substituting “has been” for “is now” and inserting “for over a century” between “change” and “that”.

6-1, L 19: add at the end of the sentence, “with regard to preferred native species and desired ecosystem functions.”

6-1, L 30: we suggest inserting “the need for continuing and” prior to “substantial”.

6-3, L 18.5: A finding should be added based on the PPIC Envisioning Delta Futures report Appendix A regarding the need for a “new paradigm” of ecosystem assessment and response, while developing an improved understanding of what was “wrong” about previous restoration efforts. Another pertinent finding to add would be one acknowledging the inherent uncertainty in pursuing ecosystem restoration and the uncertainty of the science upon which it is based.

6-4 L 41-43: This assertion is subject to significant scientific debate. A metric needs to be created to measure variability and it needs to be demonstrated that it has, in fact, demonstrably changed. Moyle et. al., 2010, assert that reductions in variability of flow are a major cause of the pelagic fish decline. However, Moyle et. al. do not define variability; nor have they presented any analysis demonstrating that variability of flow has changed between the period when pelagic fish abundance was relatively high and now. Furthermore, Enright and Culberson, 2010, report no change in flow variability during the era of water project development. We suggest either deleting this sentence, or at least adding language identifying the scientific debate.

6-6, L 7: This section on the reduction of threats and stressors is much too narrow, with the introduction of non-native species and entrainment as the only two system stressors identified as affecting the Delta ecosystem. The Delta ecosystem is far more complex and consists of stressors including, but not limited to, water temperature, tidal influences, sedimentation, channelization, predation, hatchery impacts, illegal harvest, nutrient ratios, subsidence, habitat loss, food web, and sea level rise. We urge that this section be supplemented. Although the stressors that affect the Delta ecosystem are varied and complex, the DP must include a comprehensive assessment and analysis of all stressors and their impact on the ecosystem.

6-6, L 8-12: Should add "95-98% of biomass in the Delta is non-native" in this description.

6-6, L 13-14: With regard to entrainment at the SWP/CVP facilities, this finding is in scientific dispute, particularly with regard to alleged population level effects. There are no studies that show statistically significant relationships between various measures of entrainment and subsequent spawning abundance. Furthermore, two recent life cycle models failed to find statistically significant effects of proportional entrainment over the one-year life cycle of delta smelt. The distribution of longfin smelt is centered in downstream areas so that the fraction of the population susceptible to entrainment is very small, approaching 0.0%. Two factors make the effects of entrainment of delta smelt on subsequent spawning abundance statistically insignificant: (1) Density dependence acts at higher levels of abundance to mute entrainment effects, and (2) the variation in other important factors, most notably food, are so large relative to entrainment effects that entrainment effects cannot be detected. This finding needs to at least add some narrative explaining the nuances of the entrainment issue.

6-6, L 29-31: New flow standards must be designed to achieve both prongs of the coequal goals not just ecosystem restoration. Indeed, it is expected that the BDCP will result in new flow standards serving both prongs of the coequal goals. It is inappropriate and sadly ironic that the DP cited to the SWRCB 2010 flow criteria report as the basis of asserting a need for more flow to meet the ecosystem restoration objectives (as yet to be determined) of the coequal goal when by its own admission the SWRCB completely ignored any aspect of the water supply reliability component of the coequal goals in developing its report and subsequent analysis of the developed criteria have been shown to completely crash the water management system, emptying reservoirs to the devastation of the state's economy, the significant loss of clean hydropower generation, and to the detriment of salmonid resources due to lack of cold water resources in dryer years driven by the flow object.

CHAPTER 8

8-1, L 15: there should be a footnote to use of the term "islands" since so many are really subsided depressions surrounded by channels rather than islands in the conventional sense.

8-1, L 16-17: Threats should also include increased peak flows as a result of climate change and altered hydrology, including more rain than precipitation being locked up in snowpack for release over longer period.

8-1, L 21: should add threat to water system from salt water intrusion etc., and it should be "4" million acres rather than "3".

8-1, L 23: should add threat to ecosystem values as well from levee failure, including previous, current and probably future investments in habitat that already do or will rely on levees too.

8-3, L 29: "PROCESS" for "PORCESS"

8-4, L 12: To meet an explicit charge from the Legislature, there should be a finding which identifies the lack of an existing strategic levee investment plan that identifies and prioritizes necessary improvements, including the consideration of habitat restoration opportunities. There should be an additional finding that these strategic investments in levee improvements must be commensurate with benefits achieved. Further, there should be another finding, as the Legislature has concluded, that not all islands are economically sustainable with respect to the high cost of levee maintenance or reclamation after a breach; e.g. "THE VALUE OF LANDS BEHIND LEVEES OFTEN DO NOT SUPPORT (OR JUSTIFY) THE COST OF LEVEE MAINTENANCE AT EVEN MINIMAL SAFETY STANDARDS AND WHERE THEY DO, OFTEN THE ABILITY OF LOCAL RESIDENTS TO FUND SUCH MAINTENANCE IS WANTING"

8-4, L 40: This finding should be specifically tied to California by mentioning the Delta or California as well as the "nation".

8-5, L 30 & 38: These two findings are redundant in many respects and should be rewritten to eliminate that redundancy.

8-6, L 8: substitute "upstream of" for "connected to"

8-6, L 35-36: Here the numbers are 23 million people and 7 million acres of agriculture. Earlier it was 25 million people and 3 million acres of agriculture. Whatever the numbers are, the document should be consistent.

8-7, L 27: We suggest adding the following to the list of "Working Categories of Potential Policies and Recommendations" for risk reduction; "Study of potential freshwater pathway as response to major levee failure prior to new conveyance coming on-line".

CHAPTER 9

9-1, L 13: insert "the" before "San Francisco Bay Area".

9-1, L 18: add at end of sentence, "consistent with furthering achievement of the coequal goals."

9-3, L 11: Would add "recreational activities" (hunting, birding, fishing, boating, etc.) as helping to "define" the Delta's unique "culture".

9-3, L 16: The Delta is not the "source" of export water supplies; it is the "source" of water used in the Delta itself. This is an important distinction that cannot be ignored.

9-5, L 25-26: This statement implies that in-Delta agriculture is more economically productive than areas that use or rely on water from the Delta watershed. The DP should provide a table that demonstrates consistently calculated economic values of agriculture of upstream, in-Delta and export areas to inform the Council and the public regarding relative agricultural values. This table should also include the average applied and consumptive water amounts used in each region.

9-5, L 38: actually subsidence has reached as deep as 30 feet in some areas of the Delta, so we suggest substituting "30" for "25".

9-7, L 19: possible typo, missing space between "subsidence" "and"?